

Application No. 09/701,142  
Attorney's Docket No. 022701-892

Page 1

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listing, of claims in the application:

**Listing of Claims:**

1. (Previously Presented) Zinc aluminate, having, after being calcined at least at 800°C for 8 hours, a specific surface area of at least 85 m<sup>2</sup>/g.
2. (Previously Presented) Zinc aluminate according to claim 1, having, after being calcined at 800°C for 8 hours, a specific surface area of at least 100 m<sup>2</sup>/g.
3. (Previously Presented) Zinc aluminate according to claim 1, having, after being calcined at 900°C for 2 hours, a specific surface area of at least 70 m<sup>2</sup>/g.
4. (Previously Presented) Zinc aluminate according to claim 1, having, after being calcined at 1000°C for 6 hours, a specific surface area of at least 50 m<sup>2</sup>/g.
5. (Previously Presented) Zinc aluminate according to claim 1, having, after being calcined at 1000°C for 6 hours, in an H<sub>2</sub>O/N<sub>2</sub> medium with 10% H<sub>2</sub>O by volume, a specific surface area of at least 50 m<sup>2</sup>/g.

Application No. 09/701,142  
Attorney's Docket No. 022701-892  
Page 2

6. (Previously Presented) Zinc aluminate according to claim 1, comprising at least one additive selected from the group consisting of the elements of Groups IA, IIA, VIIA to IB of the Periodic Table and from tin, gallium and the rare earths.

7. (Currently Amended) Precursor composition for a zinc aluminate, comprising compounds of zinc and ~~aluminium~~ aluminum which are capable of forming, after being calcined, a zinc aluminate, said aluminate having, after being calcined at least at 800°C for 8 hours, a specific surface area of at least 85 m<sup>2</sup>/g.

8. (Previously Presented) Composition according to claim 7, which is capable of forming an aluminate having, after being calcined at 800°C for 8 hours, a specific surface area of at least 90 m<sup>2</sup>/g.

9. (Previously Presented) Composition according to claim 7 comprising at least one compound of an element selected from the group consisting of Groups IA, IIA, VIIA to IB of the Periodic Table and from tin, gallium and the rare earths.

10. (Currently Amended) Process for the preparation of an aluminate according to claim 1, comprising the following steps:

Application No. 09/701,142  
Attorney's Docket No. 022701-892  
Page 3

- bringing a zinc salt, ~~zinc~~ sol or ~~zinc~~ alkoxide and an ~~aluminium~~ ~~aluminum~~ alkoxide together in a solvent medium, optionally with a salt, sol or alkoxide of at least one additive;
- ~~hydrolysing~~ ~~hydrolyzing~~ the mixture thus formed by adding water in an excess amount with respect to the ~~aluminium~~ ~~aluminum~~ alkoxide;
- recovering the precipitate formed and optionally drying, thereby obtaining the precursor composition;
- if required, calcining said precipitate, thereby obtaining the aluminate.

11. (Currently Amended) Process for the preparation of an aluminate comprising an additive according to claim 6, comprising the following steps:

- bringing a zinc salt, ~~zinc~~ sol or ~~zinc~~ alkoxide and an ~~aluminium~~ alkoxide together in a solvent medium;
- hydrolyzing the mixture thus formed by adding water in an excess amount with respect to the ~~aluminium~~ ~~aluminum~~ alkoxide;
- recovering the precipitate formed and optionally drying, thereby obtaining the precursor composition;
- if required, calcining said precipitate, thereby obtaining the aluminate;
- the precursor composition or the aluminate is impregnated with a solution of a salt of the additive or the element.

Application No. 09/701,142  
Attorney's Docket No. 022701-892  
Page 4

12. (Previously Presented) Process according to claim 10, wherein an alcoholic solvent is used as solvent medium.

13. (Previously Presented) Process according to claim 10, wherein water in the form of a water-alcohol mixture is added.

14. (Previously Presented) Process according to claim 10, wherein the zinc salt and the aluminum alkoxide are brought together by adding the zinc salt in the solvent medium to the aluminum alkoxide.

15. (Previously Presented) Process according to claim 10, wherein the precipitate is calcined at a temperature of at least 500°C.

16. (Previously Presented) Process for the treatment of gases for reducing the emissions of nitrogen oxides, comprising using a catalytic system comprising an aluminate according to claim 1.

17. (Previously Presented) Process for the treatment of exhaust gases of motor vehicles, comprising using a catalytic system comprising an aluminate according to claim 1.

Application No. 09/701,142  
Attorney's Docket No. 022701-892  
Page 5

18. (Previously Presented) Process for the treatment of gases having a high oxygen content from motor vehicles, comprising using a catalytic system comprising an aluminate according to claim 1.

19. (Previously Presented) Catalytic system for the treatment of gases for reducing the emissions of nitrogen oxides comprising an aluminate according to claim 1 on a substrate.

20. (Previously Presented) A catalytic system for the treatment of gases for reducing the emissions of nitrogen oxides comprising a precursor composition according to claim 7.

21. (New) Process according to claim 10, wherein the step of hydrolyzing the mixture comprises adding water such that the excess amount is sufficient to provide a molar ratio of water to aluminum alkoxide of at least 6.

22. (New) Process according to claim 10, wherein the aluminate has a Zn to Al ratio of less than 0.4, and wherein the step of hydrolyzing the mixture comprises adding water such that the excess amount is sufficient to provide a molar ratio of water to aluminum alkoxide of at least 3.

Application No. 09/701,142  
Attorney's Docket No. 022701-892  
Page 6

23. (New) Process according to claim 11, wherein the step of hydrolyzing the mixture comprises adding water such that the excess amount is sufficient to provide a molar ratio of water to aluminum alkoxide of at least 6.

24. (New) Process according to claim 12, wherein the aluminate has a Zn to Al ratio of less than 0.4, and wherein the step of hydrolyzing the mixture comprises adding water such that the excess amount is sufficient to provide a molar ratio of water to aluminum alkoxide of at least 3.